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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,454	08/24/2001	Kai-Yeung (Sunny) Siu	SLKN-001/01US	3653

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EXAMINER	
NGUYEN, PHUONGCHAU BA	
ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/939,454	SIU ET AL.	
	Examiner	Art Unit	
	Phuongchau Ba Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2006*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 38, 42, 47, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (5,896,380) in view of Fan (6,324,165)

Regarding claim 38,

Brown (5,896,380) discloses a method of routing network traffic, comprising:

receiving a data stream of cells at an input layer, each cell of said data stream of cells including data and a header to designate a destination device (abstract, lines 3-5);

routing a selected cell from said input layer to a selected intermediate layer circuit within a set of intermediate layer circuits, said routing including

routing said selected cell to a specified buffer within said selected intermediate layer circuit that corresponds to said destination device of said selected cell (abstract, lines 3-21); and

delivering said selected cell from said selected intermediate layer circuit to a selected output layer circuit within a set of output layer circuits, said selected output layer circuit corresponding to said destination device of said selected cell (abstract, lines 3-21).

Brown discloses all the claimed limitations, except (1) generating a back-pressure signal representative of a status of said selected output layer circuit for providing a responsive feedback to said input layer such that said routing is responsive to said status of said selected output layer circuit.

However, in the same field of endeavor, Fan (6,324,165) discloses DRC rate feedback control for generating a rate feedback from an output port to the input port so that the input port would only send data without exceeding the minimum guaranteed rates, (column 7, line 44 to column 8, line 67, see also figure 3 and col.13, line 4-col.14, line 63), corresponding to (1). Therefore, it would have been obvious to an artisan to apply Fan's teaching to Brown's

system with the motivation being to control internal congestion and to achieve fair throughput performance among competing flows at switch bottlenecks.

Regarding claim 42,

Brown (5,896,380) discloses a method of routing network traffic, said method comprising:

receiving a data stream with a set of cells, each cell including data and a header to designate a destination device (col.2, lines 43-46),

assigning a selected cell of said set of cells to a selected queue of a set of queues within an input layer circuit, said selected cell specifying a selected destination device, said selected queue corresponding to said selected destination device (col.2, lines 43-46);

routing said selected cell to a selected intermediate layer circuit within a set of intermediate layer circuits, said selected intermediate layer circuit including a set of buffers (queues 64-fig.3) corresponding to a set of destination devices (col.2, lines 46-50), said selected intermediate layer circuit assigning said selected cell to a selected buffer of said set of buffers, said

selected buffer corresponding to said selected destination device (col.2, lines 46-50); and

sending said selected cell as said selected cell arrives at said selected intermediate layer circuit (col.2, lines 50-55) to a selected output layer circuit within a set of output layer circuits, said selected output layer circuit corresponding said selected destination device, said selected output layer circuit storing said selected cell prior to delivering said selected cell to an output node (col.2, lines 50-55).

Regarding claim 47,

Brown discloses all the claimed limitations, except (1) generating a flow control warning signal in response to output layer congestion at said selected output layer circuit; forming a flow control header signal within a header of an incoming data cell in response to said flow control warning signal; and processing said incoming data cell through said selected intermediate layer circuit and said selected output layer circuit in accordance with said flow control header signal.

However, in the same field of endeavor, Fan (6,324,165) discloses DRC rate feedback control (flow control warning signal) for generating a rate feedback from an output port to the input port so that the input port would only send data without exceeding the minimum guaranteed rates, (column 7, line 44 to column 8, line 67, see also figure 3 and col.13, line 4-col.14, line 63), corresponding to (1). Therefore, it would have been obvious to an artisan to apply Fan's teaching to Brown's system with the motivation being to control internal congestion and to achieve fair throughput performance among competing flows at switch bottlenecks.

Regarding claim 50,

Brown further discloses wherein said sending includes sending said selected data cell from said selected intermediate layer circuit without communicating timing information with other intermediate layer circuits within said set of intermediate layer circuits (col.4, lines 63-65).

3. Claims 39, 40, 44, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (5,896,380) in view of Fan (6,324,165) as applied to claim 38 above, and further in view of Lipp (6,751,219).

Regarding claims 39, 44,

Brown discloses all the claimed limitations, except wherein said intermediate layer is configured to identify a multicast demand signal in a cell and thereafter replicate said cell to produce a multicast signal.

However, in the same field of endeavor, Lipp (6,751,219) discloses wherein said intermediate layer is configured to identify a multicast demand signal in a cell and thereafter replicate said cell to produce a multicast signal (col.20, lines 26-58).

Therefore, it would have been obvious to an artisan to apply Lipp's teaching to Brown's system with the motivation being to avoid localized congestion and packet blocking.

4. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (5,896,380) in view of Fan (6,324,165) as applied to claim 42 above, and further in view of Nicols (6,473,428).

Regarding claim 43,

Brown discloses all the claimed limitations, except wherein said routing is initiated when said selected queue reaches a specified cell volume level.

However, in the same field of endeavor, Nicols (6,473,428) discloses wherein said routing is initiated when said selected queue reaches a specified cell volume level (col.5, lines 24-38). Therefore, it would have been obvious to an artisan to apply Nichols's teaching to Brown's system with the motivation being to prevent overloading at buffer.

5. Claims 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (5,896,380) in view of Fan (6,324,165) as applied to claim 42 above, and further in view of Plelissier (6,661,773).

Regarding claims 48-49,

Brown discloses all the claimed limitations, except wherein said input layer is operative in a normal mode to deliver data cells to each of said intermediate layer circuits and is alternately operative in a fault mode to deliver cells to a subset of said intermediate layer circuits that remain operative.

However, in the same field of endeavor, Plelissier (6,661,773) discloses wherein said input layer is operative in a normal mode to deliver data cells to each of said intermediate layer circuits and is alternately operative in a fault mode to deliver cells to a subset of said intermediate layer circuits that remain operative (col.4, lines 4-54). Therefore, it would have been obvious to an artisan to apply Plelissier's teaching to Brown's system with the motivation being to ensure data successfully delivered to respective destination nodes in the network.

6. Claims 41, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (5,896,380) in view of Fan (6,324,165) as applied to claim 38 above, and further in view of Milway (6,122,279).

Regarding claims 41 & 46,

Brown discloses all the claimed limitations, except wherein said routing includes routing said selected cell to a dedicated high priority traffic intermediate layer circuit when said header specifies that said selected cell has a high priority.

However, in the same field of endeavor, Milway discloses wherein said routing includes routing said selected cell to a dedicated high priority traffic intermediate layer circuit when said header specifies that said selected cell has a high priority (col.17, lines 34-37). Therefore, it would have been obvious to an artisan to apply Milway's teaching to Brown's system with the motivation being to provide a service to urgent traffic in a more timely manner.

Response to Arguments

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PChau

Phuongchau Ba Nguyen
Examiner
Art Unit 2616

Chau Ti Nguyen

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SUPERVISORY PATENT EXAMINER
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